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**MAMDOUH'S MANDATE:
"Mind to Market"**

In a Globe and Mail profile published just after his first week in office, York University's new president Mamdouh Shoukri revealed his bold plans to "renovate" the university by focusing upon commercialized research in science, engineering, and medicine. "That is what my mandate is all about," Shoukri explained, "the direction is set." Strange that Dr. Shoukri should know, and be so sure of, his "mandate" only a week into his job and before having had a chance to acquaint himself with the institution and the members of its large community of students, faculty and staff. Where did this "mandate" come from?

"Mind to Market" was not coined here. It is the title of a breakfast lecture series featuring prominent business leaders that is sponsored by the Ontario Centres of Excellence(OCE), of which Shoukri is a director. The phrase succinctly reflects the essence, and origins, of his mandate. The mandate did not emerge from within York University; it is not to be found in the Academic Plan. Nor is it the new President's invention. Rather, it is but one piece of a larger corporate agenda, the particular part involving York University which Shoukri has been assigned to implement. While elements of this agenda have been afloat for some time, the agenda gained coherence and agency in 2003 with the formation of a private lobby group dedicated to the commercialization of university research, the Toronto Region Research Alliance (TRRA) and, shortly thereafter, with the creation of its government counterpart, the Ontario Research and Innovation Council (ORIC) of which Shoukri is also a member.

The TRRA was founded by John Evans, long-time lobbyist for taxpayer subsidy of industrial research (Chairman, Canada Foundation for Innovation); director of pharmaceutical and medical devices and diagnostics companies (NPS Pharmaceuticals, Allelix Biopharmaceuticals, MDS Health Group Ltd.), chair of the Ontario Commercialization Advisory Council, and former president of the University of Toronto, where he now serves as board chairman of the extensive research commercialization enterprise known as MaRS (Medical and Related Sciences Discovery District). Evans co-chairs TRRA with the investment banker Gordon Nixon, President and CEO of RBC Financial (Royal Bank). In its relatively brief existence, the TRRA has forged a working alliance among the heads of the region's research-intensive companies, universities, and hospitals aimed

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at accelerating the "commercialization process" through collaboration and partnerships. TRRA board members represent IBM, MDS, Eli Lilly, GlaxoSmithKline, the Canadian Venture Capital Association, Mt. Sinai Hospital, and the Hospital for Sick Kids and include the university presidents of McMaster (where Shoukri has been Research Vice President), the University of Toronto, Ryerson, Guelph, Waterloo, and York University.

The TRRA has concentrated its efforts upon three major regional projects. The first is focused upon biomedical innovation and is centered at the University of Toronto, associated area hospitals, and the MaRS operation, of which Evans is chairman of the Board and the president is venture capitalist Ilse Treurnicht (CEO, Primaxis Technology Ventures Inc and Director, BTI Photonic Systems) who happens also to be the wife of U of T's president David Naylor, formerly Dean of the Medical School. The second is focused upon physics and computers and is centered at the University of Waterloo and its associated Perimeter Institute for Theoretical Physics. The third is focused upon commercialization of so-called "Convergent Technologies:" software development combined with research in information and biomedical technologies, including medical diagnostics and devices. Initially a collaboration of industry partners IBM and sanofi pasteur (the largest Canadian vaccine manufacturer and part of the multinational pharmaceutical conglomerate Aventis), Sunnybrook Hospital, Women's College Health Sciences Centre, and the Town of Markham, the hub of this third "mind to market" undertaking is York University.

The TRRA has lobbied strenuously for taxpayer subsidy of their profit-seeking efforts, from both federal and provincial governments. Prime Minister Paul Martin pledged substantial funding for the schemes of his fellow Liberal Evans before being forced out by the sponsorship scandal. The Liberal provincial government has earnestly embraced and funded the effort. In addition to the Ontario Centres of Excellence, whose board members include Shoukri, Treurnicht, and University of Ottawa president Gilles Patry, along with representatives from such companies as Research in Motion (RIM), Xerox, and the patent law firm Gowling Lafleur, Henderson, Dalton McGuinty created ORIC to advise him directly while he himself became the first ever Ontario Minister of Research and Innovation. ORIC board members include Shoukri, Treurnicht, Patry, Tak Mak (genome guru from U of T), and the CEO's of RIM, Manulife, Gennum Corporation, and Chrysler.

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An engineer with experience in both industry (Ontario Hydro), and academia, Shoukri fits in well with such company, among whom his mandate was forged. When he speaks, they will be doing the talking. His presence on the OCE and the ORIC boards, with their links to the TRRA, testifies to the reputation he earned as Research Vice President at McMaster, as an administrator committed to an aggressive pursuit of partnerships and the force behind the establishment of McMaster Innovation Park. He brings to York the same spirit and drive, now installed to implement the third project of the corporate lobbyists from the TRRA. At York, meanwhile, the stage has already been set by former TRRA (and Manulife) board member Lorna Marsden, through the earnest efforts of Stan Shapson, York's Vice President of Research and Innovation. Like Shoukri, Shapson has also been a board member of the OCE and is thus well-attuned to the "Mind To Market" mantra. For the last several years Shapson has been busy laying the groundwork for the Convergent Technologies enterprise, by organizing the network in Markham branded as "YorkBiotech:The Power of Convergence."

YorkBiotech brings together many of the same collaborators already encountered above, including RBC, IBM, sanofi pasteur/Aventis, and Gowling, Lefleur, Seneca College, and the Town of Markham. In addition, it now includes CardioMed Supplies, Visualsonics, Constab Pharmaceuticals, Dalton Pharma Services, Pharm Eng Innovations, Medec, Pharmax, Ltd., Walsh Medical Devices, and York Medtech Partners. With an eclectic emphasis on biotech, pharmaceuticals, medical devices and diagnostics, nanotechnology, advanced materials, and information and communications technologies, YorkBiotech is committed to accelerate commercialization, generate and incubate spin-off companies, and create, secure, and manage intellectual property. It is chaired by Stan Shapson, who also oversees research at York University. His YorkBiotech co-chair is Mark Lievonon, CEO of sanofi pasteur/Aventis. In a Toronto Star puff piece about the TRRA (Evans sat on the Torstar board at the time), Shapson hyped the potential of the York part of the action. "The collaboration would lead to the next Boston Scientific," he exulted, a reverential reference to the giant American medical devices firm that serves as a model for the companies he grandiosely imagines YorkBiotech might some day spawn.

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With YorkBiotech up and running, Shoukri arrives at York right on schedule. And he will have others, besides Shapson, to help him fulfill his mandate, namely, the people who hired him. In recent years there have been some timely new additions to York University's Board of Governors. These include Mark Lievonon of sanofi pasteur/Aventis; Kuttimol Kurrian of Alpha Laboratories, and Samuel Schwartz, who sits on the Research and Commercialization Committee of TRRA member Mt. Sinai Hospital. On the York Board they have now joined representatives of other key TRRA allies: Rosemary Heneghan, director of IBM Global, Julia Foster, a trustee of Sick Kids, and Peter Currie, former CFO of RBC Financial. Together they will attempt to bring York University into line with the latest corporate agenda. Given York's unique history, its recalcitrant though by no means retrograde culture, its lack of an industrial research infrastructure, a relatively insignificant scientific and engineering capacity, and the absence of any medical school, they will certainly fail. York is not McMaster. The only question is how much damage they will do to the institution in the process.

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For all the heady talk about innovation and renovation, one might think there is something new about Shoukri's mandate. But what may be new for York University is not in any way new. In reality, the corporate campaign to commercialize university research has been underway in earnest throughout North America for some three decades. And the returns are in. For all the promisory rhetoric - "That is the future," Shoukri proclaimed to the credulous Globe and Mail reporter - this day has already passed, with woeful consequences for higher education.

While there had been earlier episodes of corporate collaboration with universities, as science-based industry sought to appropriate academic expertise and resources, the more recent and significant campaign began in the late 1970's, as the major industrialized countries, in the process of losing their hold on heavy industry, turned to "intellectual capital" as the new basis of their economic hegemony. And this new focus turned their attention to the primary source of this intellectual capital, the universities. Within a decade there emerged a proliferation of industrial-academic partnerships, new proprietary arrangements, and an elaborate web of interlocking directorates between corporate and academic boardrooms. In the United States this collaboration coalesced with the formation, in 1978, of a new lobby, the Business-Higher Education Forum,

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comprised of the interlocking chief executives of major industrial corporations and research universities. A Canadian counterpart, the Corporate-Higher Education Forum, was created five years later, the federal precursor to the provincial TRRA. In the U.S., the chief accomplishment of this lobby, in addition to a relaxation of anti-trust regulations regarding research consortia and greater tax incentives for corporate funding of university-based research, was the 1980 reform of the patent law (the Bayh-Dole amendment), which for the first time gave the universities automatic ownership of patents resulting from publicly-supported research. A similar change was effected a decade later in Canada, by Treasury Board fiat. At a stroke, the universities became, in effect, patent-holding companies, with the capacity to grant patent licenses to industrial partners in return for corporate patronage. By the same measure, the magic of patents, academic knowledge was converted into a commodity, "intellectual property," and the universities immediately formulated intellectual property policies and procedures to foster the creation, control, and marketing of this new commodity.

The fundamental corporate interest in academia is to socialize the costs and risks of research, by placing the burden on the taxpayer, and privatize the benefits, by securing proprietary control over the results. The appearance, then, of corporate benefaction, is misleading, for, in reality, the major subsidy flows in the reverse direction. The taxpayer underwrites more than ninety percent of research support, primarily through federal grants. In addition, the taxpayer foots the bill for the research infrastructure - laboratories, equipment, libraries, faculty, staff, and student salaries and bursaries. For a relatively small investment, a private firm is able to leverage this invaluable public resource, which would require orders of magnitude greater investment to reproduce in-house. And, in return for this modest outlay of cash, the firm secures a contract which guarantees it first right of refusal on licenses to patents emanating from the research it presumably funds. And the contract typically provides a right to prior pre-publication review of research findings, in order to identify commercially viable inventions, and a regime of secrecy through non-disclosure clauses and confidentiality agreements. The public never even knows, much less decides, what and whom they are supporting.

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Over the last few decades, with the emergence and expansion of this intellectual property regime - so well encapsulated in the phrase "Mind To Market" - the priorities of the university, and the allocation of resources, shifted dramatically, toward research and, particularly, the commercial "profit-centres." Expensive new buildings, laboratories, staff, and leading-edge scientists, as well as a correspondingly metastasising administrative and support staff, all had to be built, developed, and hired in order to make the university more commercially competitive. And all this hype and hustle came at the expense and sacrifice of the educational function of the university in general and, especially, of its decidedly non-commercial components. Thus, as this corporate-driven campaign gained momentum, it left chaos in its wake on campuses across the continent: class sizes swelled, academic programs were cut and "restructured," course offerings were reduced, tuition and fees were substantially increased while student financial support was slashed, staff salaries were frozen, faculty hirings and tenure tracks were minimized and full-time faculty were increasingly replaced by cheaper contract instructors and graduate students. In the end, the universities were retooled for business, which rarely or barely paid off given the expense, while students were paying more for their education and getting less.

At the same time, in the wake of this corporate hijacking of higher education, the culture of the campus underwent a radical transformation. With the intellectual property regime in place, a new emphasis upon non-disclosure, confidentiality, and secrecy subverted open and free intellectual exchange, and intensified the suppression of dissent. At the same time the selfless pursuit of contributions to human knowledge gave way to proprietary and pecuniary interest as the mark and measure of academic achievement, fatally eroding the integrity of the institution as a unique and invaluable repository of disinterested expertise. Censorship, heightened competition, delays in publication, scientific fraud and theft, greed, corruption, conflict of interest (through interlocking directorates among collaborators), and commercial litigation became the hallmarks of the new university, as the ethos of academia came ever more to resemble that of the so-called private sector which administrators strove so hard to emulate.

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With the arrival of Mamdouh Shoukri and his mandate, all this will now, belatedly, be visited upon York University, with a vengeance. Already the interlocking directorates are in place, the groundwork has been laid, the restructuring is underway, the reallocation of resources has become increasingly apparent. Increases in tuition and fees and cutbacks in bursaries and graduate student support have become the order of the day while full-time faculty positions have been pared back, and contract faculty are being replaced by the financially-strapped graduate students. All this to prepare for the inevitable "renovation" of York University, Mamdouh's "future." "The direction is set," he said. It's almost enough to make one feel fatalistic about that future, given the array of forces, both corporate and governmental, moving things in the same direction. But that would be a mistake. The direction is never set.

Fifteen years ago a similarly hare-brained scheme was hatched by many of the same people. At the time the "future" appeared to these visionaries in the form of a re-invigorated aerospace industry, prominent representatives of which (Spar and Fleet) then led the York University Board of Governors. Their plan was to enlarge and empower the sciences at York, in collaboration with industry, by bringing to the Downsview campus the U.S.-based, and defense- contractor-sponsored International Space University (ISU). The provincial government funded the bid in the hopes of making the aerospace industry the cornerstone of its industrial policy, and the feds followed suit. A consortium of Ontario universities, including those now working with TRRA, joined heartily in the enterprise, hoping for a piece of the action. At the very time when the space program was in disaster mode and veritable free fall, the entire York administration fervently lined up with the evangelical space cadets of the ISU, the opportunists at Queen's Park, and aerospace industry profiteers to promote the plan. In addition to touting Ontarians as a compliant workforce, the York-led bid, replete with a cover shot of the CN tower reconfigured as a rocket, promised that, by this time, all ISU students would have had at least one "off-earth experience." None of this is made up. Fortunately, a committed group of faculty and students emerged amidst all this madness to resist the scheme. Awkwardly calling themselves York Students and Faculty Concerned About York's Future, they worked diligently for two years to kill the idiotic initiative, with little or no support from established York offices and organizations. Against all odds, they fought against the aerospace industry lobby, the provincial and federal governments, and the York administration - which routinely slandered them as "anti-science" troublemakers. They won. York was spared the space debacle.

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Five years later York's enterprising hucksters were back at it, this time with their eye on the prize of online learning and the vision of the virtual university. Here again the Board of Governors added new members from the IT industry, collaboration began in earnest with venture capitalists and the venders of network hardware, software and content - IBM, Apple, Bell, cable companies, publishers, and edutainment industry. Resources were reallocated to wire the campus for the online revolution and encourage related research, rewards were proffered to participating career-minded professors, and "studies" were commissioned and championed alleging evidence of the superiority of online education between people and computers to that of the more traditional kind between people and people. York even set up its own profit-making company, Cultech, in collaboration with the government and corporate partners, to seize the opportunity. Overseeing and fuelling much of this enthusiasm was Stan Shapson, who had probably not yet heard of Boston Scientific. Alas, this effort too proved late and stillborn, having missed the moment. The costs of this new-fangled form of learning inevitably proved prohibitive and the pedagogical promise dubious. And there was never any real demand, from either faculty or students; the enthusiasts had just come to believe their own hype. Resistance to the insane enterprise had barely begun to surface when, with the turn of the millennium dot.com collapse, the money-men moved elsewhere and the scheme sunk like a stone. York was spared a second time, left only with the fancifully named Technology Enhanced Learning building.

And now here we go again, this time with biotech. Alas, once again the tin ears of York entrepreneurs have missed their cue. The biotech industry, especially its extensive agriculture-related component, has lost its lustre along with its markets and the medical-related sector has in fact delivered precious little of substance or promise. Once again the promoters have come to believe their own hype, but not the investors. At York, of course, it will be an easy sell, as it always is in an autocratic environment. People will fall in line, without instruction. And some will see in the coming renovation a career or organizational opportunity. Already Arthur Hilliker, the president of the faculty association, has publicly echoed Shoukri in his enthusiastic and self-serving - he is chairman of the biology department - endorsement of the mandate. While it is tempting to take comfort in the ineptitude of these enthusiasts, it would be a mistake to doubt or dismiss their designs. Even fools can be dangerous, especially when they rule. It is time perhaps to resurrect the cumbersome mantle of York Students and Faculty Concerned About York's Future. We've won before.